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## THE ISSUES OF "SYNECHISM."

**I**N a late number of *The Monist*, (Vol. II, No. 4,) there appears a singularly acute and profound article, from the pen of one of the ablest of American logicians and mathematicians, Mr. Charles S. Peirce. Its subject is "The Law of Mind"—the idea of continuity. The writer tells us, (p. 534,) "the tendency to regard continuity, in the sense in which I shall define it, as an idea of prime importance in philosophy, may conveniently be termed *Synechism*." With this *synechistic* philosophy, as applied to mind, the paper is occupied, to the exclusion, for the nonce, of Mr. Peirce's companion doctrine of *Tychism*,\* which was dealt with, by him, in the January, 1891, and April, 1892, issues of *The Monist*. These conceptions are, both of them, to be viewed as essential to philosophy as a whole, but the latter is, for the present, allowed to drop out of sight, in order to allow of the due elaboration of the former.†

### THE FORMULA OF SYNECHISM.

The formula of Synechism, with which the article begins, is as follows :

"Logical analysis applied to mental phenomena shows that there is but one law of mind, namely, that ideas tend to spread continuously, and to affect certain others which stand to them in a peculiar relation of affectibility. In this spreading they lose intensity, and especially the power of affecting others, but gain generality, and become welded with other ideas." (Vol. II, No. 4, p. 534.)

The individuality and continuity of ideas are, then, shown respectively to involve no contradiction; an idea once past—in the

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\* From *τύχη*, chance.

† *Tychism* again comes to the front in the succeeding number of *The Monist*, (Vol. III, No. 1,) in an article by Mr. Peirce, entitled "Man's Glassy Essence."

sense of an event in an individual consciousness—is not wholly past, it is only going—"infinitesimally past, less past than any assignable past date." Thus the conclusion is reached that "the present is connected with the past by a series of real, infinitesimal steps." Again, "We are forced to say that we are immediately conscious through an infinitesimal interval of time. This is all that is requisite." (*Ibid.*, pp. 535-536.)

All that it is necessary to say at the outset is, that this view is supported by an elaborate inquiry into the nature of infinity and continuity in general, into which, for the purpose of the present paper, it is not needful to enter. And this for two reasons: (1) The synechistic philosophy, by itself, does not profess to be monistic. Its expounder does not, even if his Tychism were not in reserve, profess to carry it beyond the realm of mind, with all that is implied in such a reservation. Now, it is the bearing of Mr. Peirce's Synechism upon a monistic solution of the universe with which the present article is concerned. And (2) Mr. Peirce's method of treatment, though precise and logical in the direction of its own path, is too purely technical to be summarised for the general reader's benefit. But withal, Synechism is far too fertile, not so much in respect of what it makes clear, as suggestively, and, if the expression may be allowed, *obliquely*, to be passed over without comment. Its excogitator is eminently frank; he does not conceal the difficulties which, ever and anon, occur in his statement. Sometimes his theory seems a trifle too wide for the facts encountered, sometimes rather too scanty to contain them. Such phrases as the following: "No, I think we can only hold"—p. 552; "we are driven to perceive"—p. 555; "this obliges me to say"—p. 557; "the principle with which I set out requires me to maintain"—p. 558; "the only answer that I can, at present, make is"—p. 559, etc., etc., do every credit to the writer's candor, but they would scarcely occur in an exposition, which, in the mind of its author, made the rough places altogether plain. Synechism, even with Tychism in the background, probably does not, in Mr. Peirce's own mind, completely solve the world-riddle, at least, as yet. Still these very pauses themselves, on the part of a thinker of such ability, are eminently suggestive.

To use his own words: "the present paper is intended to show what Synechism is, and what it leads to." Let us emphasise this latter clause, as likely to be more fruitful than the former.

#### MR. PEIRCE'S POSITIVISM.

Mr. Peirce, in spite of his theory of chance, is, in his Synechism, almost severely a positivist;\* but his positivism, like most of that current nowadays, does not go deep enough. He is positivist, *after* he has got externality—fertile in excitations—comfortably disposed around his subject; and vibrations, undulations, attractions, etc., ready to play upon the thousand-stringed harp, *but not before*. For, "we must not tax introspection," he tells us, p. 548, "to make a phenomenon manifest, which essentially involves externality," when the real problem at issue is: Is there externality, in the vulgar sense, at all, or is it only that *rationalised externality* which *circumspection*, within the limits of egoity, reveals? Now, upon this a good deal hinges. At all events the difference in question, or, rather, that there *is* a difference, has been mooted, to say the least. And, this being the case, it is a little tedious, when the really vital point of the spatial extension of feelings is being debated, to have this illustration brought in, (p. 548,): "Moreover, our own feelings are focused in attention to such a degree, that we are not aware that ideas are not brought to an absolute unity. Just as nobody, not instructed by special experiment, has any idea how very, very little of the field of vision is distinct." Why, that is reasoning in a circle, if some systems are true; and it is a begging of the question, if they are the reverse.

If the system of so-called objective reality were, at sight, wholly veracious, if everything existed just as it seems, this positivism of Mr. Peirce's might be workable. Then no one would seek to go beneath the process of the apparent, the actually visible, for a *rationale*. But modern science teaches, in its very primer, that many things are, and act, quite otherwise than as they seem to be, and do. Appearances *rationalised* are alone to be accepted. The sun

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\* Dr. Carus, in his review of Mr. Peirce's doctrines, (*The Monist*, Vol. II, No. 4, p. 575,) notes this positivistic-constructionism.

does not "rise" and "set," as it seems to do. The earth is not, as it appears to be, an immovable plane, and so on. And, this once allowed, where is the principle to end? If the superficial judgment may be thus corrected, or reversed, it is liable to revision or reversal *ad infinitum*, unless reason be shown to the contrary. It may thus be disputed whether our author is quite in order in writing, as he does, and using the statement to support his theory—"Precisely how primary sensations, as colors and tones, are excited, we cannot tell, in the present state of psychology. . . . As far as sight and hearing are in question, we know that they are only excited by vibrations of inconceivable complexity; and the chemical senses are probably not more simple." (P. 557.)

To argue, we cannot tell precisely *how* they are excited, but we know that they *are* excited, is somewhat feminine; seeing that the said "excitement" is not patent on the surface of ordinary perception. And, this being the case, the excitement, or its mode rather, not being given immediately, but only mentally annexed, Mr. Peirce is not consistently positivist. It is equally open to an opponent to "annex" something else of his own to the "given" thing, or altogether to deny the necessity of anything whatever being thus annexed. In any case that (if anything) which is sought to be annexed must stand the test of positivism; we must know *if* such a thing is, and *what* it is precisely. And this is just what Mr. Peirce cannot do for us. He cannot tell us exactly what the "excitant" of feelings *is*; he can only guess what it is "*something like*," viz.: the feelings themselves. Hence the following:

"The principle with which I set out [that of continuity] requires me to maintain that these feelings are communicated to the nerves by continuity, *so that there must be something like them in the excitants themselves.* If this seems extravagant, it is to be remembered that it is the sole possible way of reaching any explanation of sensation, which otherwise must be pronounced a general fact absolutely inexplicable and ultimate. Now absolute inexplicability is a hypothesis which sound logic refuses, under any circumstances, to justify." (P. 558.—The italics are not in the original.)

There must be something like the feelings in the excitants of the feelings. Now, this point is worthy of the closest attention. Note that "the excitant" *alone* is mentioned. *Vibrations* excite sight

and hearing. Yet, from what follows, it is plain that Synechism is not inconsistent with belief in a fixed objective. "Even the least psychical of peripheral sensations, that of pressure, has, in its excitation, conditions which, though apparently simple, are seen to be complicated enough when we consider *the molecules and their attractions*," pp. 557-558. Can there, then, be any doubt that we have here three distinct things: (1) a subjective, (2) an "excitant," and (3) an objective; the middle term being a vehicle of communication between the first and third? It does not affect this presentation of Mr. Peirce's position that, at an earlier stage of his argument, he speaks of matter—synonymous, presumably, with the objective—as being "not completely dead, but merely mind, hide-bound with habits," as "partially deadened" or "effete," mind; or that the editor of *The Monist* says that, with Mr. Peirce, "mind is the beginning of all." (*The Monist*, Vol. III, No. 1, p. 95.) The question, at present, is not regarding origins, but regarding co-existences. So that there is a distinct *hiatus* here, arising from the confusion of the stimulant, or excitant, of sensation with the objective itself.\* Now, the stimulant of sensation is never the object perceived. Hence, once an objective is admitted, a trinity of entities is unavoidable, since still less can the "stimulant" be the subject. This special difficulty, in the present writer's opinion, is inseparable from dualism in every form. How it besets Mr. Peirce's theory is evident from his hazarded suggestion: "There must be *something like* the feelings in the excitants." He thus uses only two of his cosmical terms, and gives the third the go-by! All dualism halts, but surely there is here a palpable stumble.

In a recent article in *The Open Court*† I have pointed out the vanity of introducing a vehicle of communication between object and subject, especially emphasising the fact that, once this intermediate term is brought in, the veritable objective disappears. "Once you bring in vibrations," I remarked, "you practically provide a *second* object, which is really a part of the subject, and, in

\* Cf. T. H. Green, *Prolegomena to Ethics*, Ch. II, p. 63.

† Nos. 258, 59, 61, August, 1892. *Miss Naden's World-Scheme*.

order to do this, you have taken from the original objective all that composed it."\* (*The Open Court*, p. 3361.)

Is it any wonder, then, that Mr. Peirce should suppose the excitants to be "something like" the excited feelings? Since he, practically, surrenders the objective, what could more closely resemble the subjective than the subjective itself? If he had adopted the position of Hume, and made impressions and ideas all-in-all, his principle of continuity might hold. But this he does not do, since (1) he implicitly admits the objective element, and (2) even if he did not do this, there must be something other than the idea or feeling in his system, since, otherwise, there could be no ground for the charge of seeming "extravagance," which, he admits, may be leveled against, at least one of, his conclusions.

#### FEELINGS SPATIALLY EXTENDED.

This leads us to Mr. Peirce's conclusions regarding subjective spatial extension—the spatial extension of feelings—as the result of observation of irritated protoplasm. Our attention is directed to an excited mass of protoplasm,—an amœba, or a slime-mould,—which "does not differ in any radical way from the contents of a nerve-cell, though its functions may be less specialised." (P. 547.) The irritation is induced when, say, the amœba is "quiescent and rigid," and we note its behaviour under it. That feeling passes from one part of this amorphous continuum of protoplasm to another, we are led to believe. And this conclusion follows: "Whatever there is in the whole phenomenon to make us think there is feeling in such a mass of protoplasm,—*feeling*, but plainly no *personality*,—goes logically to show that that feeling has a subjective, or substantial,

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\* In a note to this passage was appended a quotation from a pamphlet by Dr. E. Cobham Brewer as a practical instance of the objective being, on the antiquated subject-object plane, actually superseded. Suppose a very remote star to become extinct, the "vibrations" would continue to "travel" towards a spectator situated on our planet for years, it may be for centuries. So that the spectator, ultimately, "sees" that which does not even exist. Dr. Brewer's comment, which cannot be considered any contribution to a satisfactory *rationale*, is: "the objects, however, must have existed, or no messenger could have been sent from their courts." Evidently, in this case, that which is sent is, at least, as good as the sender—is, in fact, the self-same thing. Only, in that case, what of the extinct object?

spatial extension, as the excited state has." This is a chain of reasoning. Let us examine its links. We have :

(1) The behaviour of the amoeba under immediate, mechanical irritation—the spread, or spatial extension, of the state of irritation.

(2) We are asked to identify this spread-out irritation, this field of excitation, with "feeling" on the part of the amoeba, because there is "no doubt that it feels when it is excited."

(3) From the spatial extension of the irritation, thus identified with feeling, we are asked to conclude that the feeling, in the amoeba, has a subjective, spatial extension as the excited state has, and, finally, passing from the feeling of the amoeba to our own feelings, by inference, we are asked to admit :

(4) Not that we have necessarily a feeling of bigness, but that "the feeling [inferentially arrived at from the spread-out irritation on the part of the amoeba] as a subject of inhesion is big." (P. 548.)

After this, we are disposed to agree with Mr. Peirce when he says : "This is, no doubt, a difficult idea to seize"; not, as he goes on to say, "for the reason that it is a subjective, not an objective, extension," but on the ground that the reasoning involves, plainly, not only the subjective and objective, but what Clifford calls the "ejective," as well, and this assumption, *inter alia*, that the last-named lies on the same plane as the former. Never, surely, was the conclusion that feelings have spatial extension more easily reached. It is only when we find that in (1) we are dealing with the objective pure and simple, observed phenomena; that in (2) the connection between irritation or excitation, and feeling is assumed, in the object, because feeling, subjectively, is found to accompany irritation; that (3) as the irritation, in the amoeba, is spread out, so is the feeling to be viewed; and (4) that, as the feeling of the amoeba, so is our feeling to be considered, viz.: that the feeling, "as a subject of inhesion, is big," we are led to say after all this, that, by such a process, anything, or everything, could be demonstrated,—the field of spatial extension, for example, having no more claim to be assumed than the point at which the irritation admittedly begins. Why should the *middle* stage of the irritation be selected in preference to the *initial* and *final* ones? The irritation originates in a

point, spreads, and then dies out. Thus our feeling, (we purposely use Mr. Peirce's nomenclature,) or idea, of an elephant, is unquestionably, as a subject of inhesion, "big." *But only for a time, and not at first.* Really, our idea, or feeling—in Synechism—of an elephant, must logically commence as a minute speck, and return to this vanishing-point again. There is no other way out of it. For must not the analogy of the irritated amoeba be followed throughout, and if not, why not?

#### DUALISM AND THE WAY OUT.

The *crux* of philosophy, from the time of Hume to the present day, has been, what may be summarised as, the consciousness of succession *as* succession. The hours pass over the mental dial, but, though one succeeds the other, something is needed besides the succession of the terms of the series to give consciousness of the series *as a series*, to give the synthesis of the day made up of hours. Hume virtually gave up the problem in eviscerating the subjective. Prof. T. H. Green only missed the point at issue when he placed his eternal consciousness, which was to "have and to hold" the terms of the cosmical series, as it were in solution, for the human organism, *out of time altogether*. Mr. Peirce puts the matter boldly when he says: "An idea once past is gone forever, [in the sense of an event in an individual consciousness,] and any supposed recurrence of it is another idea." (P. 534.) In order, then, that an idea past may be present really, and not vicariously, the notion that consciousness necessarily occupies an interval of (finite) time must be given up; since, to put it briefly, a second past is as much past as a year. According to Mr. Peirce then, and his contention is supported by an elaborate inquiry into the nature of infinity and continuity generally, "we are immediately conscious through an infinitesimal interval of time." For the complete *rationale*, reference must necessarily be made to the article itself.

Even the above outline, however, is sufficient to show that, here as elsewhere, Mr. Peirce's dualism is his snare. Nothing but this could lead to a disintegration so complete as the following:

"In this infinitesimal interval, not only is consciousness continuous in a subjective sense, that is, considered as a subject, or substance, having the attribute of

duration; but also, because it is immediate consciousness, its object is *ipso facto* continuous." (P. 536.)

This is to admit, practically, that there is something in consciousness other than the consciousness itself. And this is evident, because at one and the same time, (whether an interval of finite time, or an infinitesimal interval,—whether an "instant" or a "moment,"—does not matter,) these two entities are different. For :

"This mediate perception is objectively, or as to the object represented, spread over the four instants; but subjectively, or as itself the subject of duration, it is completely embraced in the second moment." (*Ibid.*)

But this "mediate" and "immediate" cannot simultaneously exist, unless there is something else *to which* they do so exist. It is only paltering with us in a double sense to speak of "instant" and "moment" in this connection. The one may pass into the other, but there is "a time when" (it matters not whether the interval be finite or infinitesimal) they do not coexist. Hence, they are not the same, but different.

According to Mr. Peirce's notation, for all ordinary purposes we may write, if  $a$  is a finite quantity, and  $i$  an infinitesimal,  $a+i=a$ . "That is to say, this is so for all purposes of measurement." Be it so; the infinitesimal may be neglected for purposes of calculation. But such a formula can only be experimental. The theory which embodies it cannot avail for a world-scheme; to admit it would be to grant that a thing is, and is not, at one and the same time. Surely the most superficial reader will see that, to put it popularly, a world-scheme admits of no alternative subject to accept, or to reject, a neglectable quantity.

And this is not the only instance of dualism in Mr. Peirce's world-scheme as a totality. For have we not Synechism and Tychism as well? With the latter Mr. Peirce does not deal in the paper now under consideration. He must, however, be credited, or debited, with it, as held in reserve. For our present purpose it is not necessary to examine Tychism in detail. Its alleged existence is sufficient. For, and here let the significance of what follows be noted, in Mr. Peirce's view, as opposed to determinism, Tychism exists as a principle. It *is*, otherwise it could not be expounded as operative. But

it also exists as an idea, first, it may be, in our author's mind, and subsequently in the minds of his disciples. Thus it falls into the synechistic province: "As an idea it can only be affected by an idea, by anything but an idea it cannot be affected at all." ("The Law of Mind," p. 557.) Yet to affirm Tychism thus impotent, because unaffected, outside the synechistic sphere, is to contradict Mr. Peirce's conclusions, for if Tychism is nothing outside the ideal realm, it is altogether inside it. Hence Synechism is everything practically, and Tychism nothing. But that Mr. Peirce will not have. He has a two-fold Tychism, that is the fact; actual and operative on the one hand, ideal on the other. And this is dualism confessed.

Mr. Peirce's method is quite fertile in duplication of the subjective entity. His latest paper, "Man's Glassy Essence," (*The Monist*, Vol. III, No. 1,) contains some typical instances.

"Viewing a thing from the outside, considering its relations of action and reaction with other things, it appears as matter. Viewing it from the inside, looking at its immediate character as feeling, it appears as consciousness." (P. 20.)

This is the strictly empirical view. And it may be possibly defended with the contention that all problems, to be duly examined, must, in the first place, be viewed from that standpoint. But it must be plainly manifest to any unprejudiced thinker that, even granted a total cosmical problem made up of separate problems of an individual nature, the same method of solving the sum cannot be employed which is used in solving its constituents. In the above instance, considering matter in its totality, and consciousness in its totality, what is left to view them indifferently from "outside," or "inside"? Plainly nothing. Still more transparent an example is the following:

"The consciousness of a habit involves a general idea. In each action of that habit certain atoms get thrown out of their orbit, and replaced by others. Upon all the different occasions it is different atoms that are thrown off, but they are analogous from a physical point of view, and there is an inward sense of their being analogous. Every time one of the associated feelings recurs, there is a more or less vague sense that there are others, that it has a general character, and of about what this general character is." (P. 20.)

This is part of the answer to the query: How do general ideas appear in the molecular theory of protoplasm? Now, without discussing the value of this *rationale*, as affecting Mr. Peirce's own theories, it is not difficult to see what its acceptance would "lead to." Certain atoms of a molecule get thrown out and are replaced by *others*. This happens repeatedly. On different occasions *different atoms* come and go. Yet they are "analogous," and there is "an inward sense" of this. Upon whose shoulders is the burden of proving the analogy placed, or of experiencing it even? With whom or what is there "an inward sense"? Perhaps it is better not to answer otherwise than to say that if this faculty be not present in the ever changing molecule to begin with, it cannot be logically reached by any process of multiplying it.

#### THE MONISTIC SOLUTION.

Monism, as a unitary system of the universe, does not necessarily commend itself to acceptance simply as monism. To say, this is dualism, *therefore* it cannot be a correct *rationale* of the universe, since the only true one must be monistic, is to start with an unphilosophical prepossession. The true solution may be two-fold, or it may be manifold. But it is not too much to say, perhaps, on the other hand, that, even as causes may not be multiplied without necessity, even so phenomena must not logically be divided into independent groupings without sufficient reason given. Preference should be accorded to a monistic, rather than to a dualistic, system, not on the ground alone of the simplicity of the former, but on the ground that a theory which has one explanation for one set of phenomena and another explanation for a second set, must first demonstrate that a unitary conception of the universe is, at least, improbable, otherwise it will always be hinted that the dualism in question has not gone deep enough to find a synthetic bond where-with to unite the apparently diverse. Mr. Peirce, throughout his article on Synechism, constantly touches, despite his latent dualism, the margin of a truth so great as to merit the title of transcendent. As often he misses it. And his concluding words are, in this connection, almost wistful: "The facts that stand before our face and

eyes and stare us in the face, are far from being, in all cases, the ones most easily discerned. That has been remarked from time immemorial." (P. 559.) But though thus "remarked," the maxim has, as immemorially, been neglected in practice. To none can this remark be more fitly applied than to the excogitator of Synechism, himself seeing that, having arrived at the point of asserting that "there must be *something like* the feelings in the excitants themselves," he does not see that the excitant and the feeling are one and the same; and that there is no second or third term in the cosmical equation.

Does this seem "extravagant"? If so, the reply must be *not* that it is the only escape from an otherwise inexplicable difficulty, but that there is really no difficulty at all. What Mr. Peirce's own Synechism "*leads to*" is that the past, the present, and the to-come, alike of matter and idea, are not reconciled by "time and its flow," or even by the logic of infinitesimals, subtle though that may be, but that the contents of each and all, with all their apparently infinite variety, resolve into a consistent unity.

#### THE "MISSING LINK."

Pushed to a logical conclusion, the excitants and the feelings owe their apparent variety to their assigned position in a series, the correspondence or relation between them being *only another link in the self-same chain*. Vulgar realism never fathoms this explanation. It always harps upon the one string that idealism, and more especially idealistic monism, fails to account for variety or difference; forgetting, or rather never seeing, that difference or variety which is its essence, is only one more added perception on the same plane with ordinary perceptions; so that given *a, b, c, d*,—sundry perceptions,—their essential variety may be stated as *e*. Or this may be stated numerically; variety, as a whole, being nothing more than the sum of differences, which is always something other than the terms differentiated, but always on the same level with them—the difference between any continuous number, above unity, and another number being a third number, which is different from either. Variety in numbers cannot be expressed otherwise than numerically.

So, in the last recess, the variety of colors is only colorable, of tones audible, and so on. The "vibrations of inconceivable complexity" which, according to Mr. Peirce, "excite sight and hearing," can be approximately stated numerically, so that the difference between red and, say, yellow, is a number corresponding to another color, which may be orange or not; it being part of the present scientific theory of light that any specific number of ethereal undulations happening between the colors of the ocular spectrum, corresponds to a possible color, although the retinal expanse may be insensible to these particular rates of tremor. To Mr. Peirce it may appear "extravagant," but the difference between any two colors and tones is another color, another tone; just as the difference between any two numbers is a third number. This is the logical outcome of his own Synechism; *this*, in part, is what it "leads to."

#### TIME AND ITS "FLOW" RATIONALISED.

Excitants and feelings being unified, and the element of variety, hitherto supposed to be the exclusive copyright of vulgar realism, shown to be nothing but another term added to the series, or, numerically, a concurrent series—so that should  $a, b, c, d \dots$  be a series, the variety of the series may be expressed as  $e$ , or the individual differences as  $f, g, h \dots$ —it only needs an examination of what Mr. Peirce terms "time and its flow," to render his system a completely monistic one, and this although true monism is much more than the negation of determinism, synechistically expressed.

In Mr. Peirce's article under examination, "The Law of Mind," the notation of infinitesimals, which forms the keystone of Synechism, is only introduced after a lament over the incapacity, or unworkableness rather, of finite time, when the duration of consciousness is involved. If *finite* time is to come in as a factor—"an idea once past [in the sense of an event in an individual consciousness] is gone forever, and any supposed recurrence of it is another idea" (p. 534). And the problem which Mr. Peirce sets himself to solve is how in effect to bring *back* this past idea—not vicariously—but in all its pristine freshness, into the now-time. This is sought to be accomplished by the explanation that the past idea is "not wholly

past, it is only going, less past than any assignable past date"—and so on through the intricacies of Mr. Peirce's infinitesimal theory, into which we need not enter at present. But the statement of the, supposed, difficulty which finite time presents in this connection,—the past idea really past and gone, and the recurrence of it another idea,—if put in a slightly different form, hints a solution, in continuity with the foregoing pages, without the aid of the infinitesimal at all. *That an idea is once past and gone, any occurrence, or recurrence, of this idea, is another idea.*\*

But, in the meantime, let us see what Mr. Peirce has to say regarding "time and its flow":

"One of the most marked features about the law of mind is, that it makes time to have a definite direction of flow from past to future. The relation of past to future is, in reference to the law of mind, different from the relation of future to past. This makes one of the great contrasts between the law of mind and the law of physical force, where there is no more distinction between the two opposite directions in time than between moving northward, and moving southward" (p. 546).

This for once is not very clear. It is difficult to see how "the law of physical force" can be spoken of as "in time," to the exclusion of mind; not easy, also, to understand the distinction further insisted upon. But the intention is evident, viz., to perpetuate, if not to originate, a cosmical duality. Time, it would seem, marches indifferently in at least two directions, though it is not very clear how this is accomplished. And then the old fiction follows, that "Time, as the universal form of change, cannot exist unless there is something to undergo change, etc." (p. 547.)

The same notation suits in this case as in the foregoing. Time is only another term in the series. If  $a, b, c, d$  be a series,  $e$  is the variety,  $f$  the whole time involved, and  $g$  the individual intervals. Of course all this is not a simple series, it is an infinitely complicated one; the above arrangement is only intended to show that difference, variety, time, etc., are no mysterious entities pervading events, acting as their "form" or carrying them in their "flow," but simply percepts, or concepts, on a level with others.

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\* Or to put it in another form, any one idea, and the timing of this idea are really two ideas, although, as we shall see later, they may be inseparable in practice.

This is not patent on the surface, it may be. Time has the appearance of a current in which events float. But this is an illusion dispelled by examination. Events cannot be submerged in time. Time cannot be the vehicle of events. It is impossible to conceive time as existing simultaneously with an event. It always follows it. What to Mr. Peirce appears as a "flow," arises from the foregoing. Take events, percepts, or concepts, as a hypothetical series,  $a, b, c, d \dots$  and their times as  $a', b', c', d' \dots$  the first series contains the event *per se*, or as happening; the "time when" is contained in the second series, practically inseparable from the first, but the time when necessarily follows—consequently if the first be  $a$ , the second must be, at least  $a'$ . But no concept or percept is abstract, except the concept time itself, which, being unconnected, *seems* anywhere, and, like its fellow-abstract space, is spread out, to us, tri-dimensionally, as past, present, and to come. And, as in space the position is simply spectral,\* a question of perspective or adjustment, so, in time, the timal series is adjusted to the substantive idea. But this twofold spectral succession breeds by comparative intensity (which is another complex series) the sense of a flow, where there is none, but only the idea of a flowing, which is another matter. Thus, the so-called "veil of the future" is no more a veil than it is a brickbat. It is simply the indeterminateness of an unconnected adjective—as if one should say, white—and the query arises, *What* is it that is white? When the noun is supplied you have something definite. Just so, when the future lapses into the present.

Thus there is never anything without, at least, these three additions: first, variety or difference; second, time; third, relation, spatial or otherwise. These are all terms in a series, or set of concurrent series. Nothing can be, practically, isolated, for everything runs in a series. But this is a much broader theory of continuity than that which Synechism affords.† All apparent perplexities vanish. The difficulty no longer exists that to perceive a series we must hold it, as it were, in solution. Since other than series nothing is.

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\* Cf., in this connection, the results of experiments by Cheselden, as far back as 1727 on congenitally blind persons, couched for double cataract.

† Much more inclusive, also, than the Relational Theory of the Neo-Kantians.

Hence the cosmos is an illimitable series or complex of series. But inasmuch as the timal element (as also the spatial) occurs through the series having time-term and space-term resident within it, all difficulty in apprehending it as a series vanishes. The impracticability, if any, would be in viewing any term as isolated.

#### THE RESULT *RE* TYCHISM.

What a flood of light does such a system shed indirectly upon Tychism, since the controversy between the latter and determinism mainly hinges upon the "must be," the imperative, as it were, of the series! It has been very ably pointed out by Dr. Carus in his article *re* Mr. Peirce's "Onslaught on the Doctrine of Necessity" (*The Monist*, Vol. II, No. 4, pp. 573-4) that the formula adopted by Mr. Peirce in his Tychism, "chance is first, law is second, the tendency of habits is third," involves its author in the admission of a law in a system professing to be, in its inception at all events, chanceful and *lawless*. Mr. Peirce's "Synechism" professes to be the law of mind. Parenthetically, however, it may be remarked, that the distinction as to law, and lawlessness or "chance," narrows itself to the plane of one term more or less in a series, or *even to less than that subordinate place*. For, although, for convenience sake, and for facility of contrast, we have followed Mr. Peirce's figure of a series, to show more clearly also to what his theory leads, it is nevertheless plain, that time and its accompanying relations being placed on their proper level, that of integral percepts and concepts, the figure of a series is simply a matter of convenience of arrangement. Certainly as the "time when" is necessarily annexed to every percept and concept the timal element may be said to follow, not to precede, its fellow-term. Really, however, they may be said to be simultaneous, since the timal refinements of finite, infinite, past, present, and future are each of them contained in a percept of its own.

#### EXTERNALITY A SERIAL TERM.

But if the timal element be independent as a separate percept, the spatial as another, and so on, it follows that, although the terms of the series may, as it were, *run*, though we cannot conceive them

separated, or as, in practice, otherwise than as continuous in their flow, still, theoretically, a series or complex of series it *is*, and a series may be interrupted at any term. Thus externality itself being a spatial relation, is but *one term more*, non-essential in theory, to the term preceding. So that when the Neo-Kantians speak of the "constitution of the objective" it ought to be added that it is not only the content of the objective which is thus constituted by consciousness, but that externality, all that goes to make up what is termed "out-sidedness," is constituted by consciousness also.

## THE NOW-TIME.

"*The present is half past, and half to come,*" (p. 546) like the color of a curved boundary line on a particolored surface; i. e. "betwixt and between" the two. It is here that the theory of Synechism shows its chief defect. Up to this stage we have been dealing with ideas, feelings, *a*, *b*, *c*, *d* . . . successively passing through a point of consciousness *e*. And the infinitesimal notation suits the required process fairly well. It is complicated enough, but it is ingenious, and at least plausible. Nothing up to this stage would lead us to suppose that any additional element was to be imported into the *rationale* which Mr. Peirce presents. As we have seen, finite time would not serve his purpose. By however minute a *finite* interval have *a*, *b*, *c* or *d* passed the point *e*, all chance of their recovery is hopeless. Well, we have recourse to infinitesimals, and find (to put it popularly, and not in Mr. Peirce's technical terms) that *a* past the point of consciousness by an infinitesimal interval heralds *b*. So that *e* is simultaneously confronted with the disappearing form of the first and the appearing form of the second, and the same with *b*, and *c*, in turn, and so on. Thus the present, in the sense of ideas successively passing through consciousness, is half *a* and half *b*, then half *b* and half *c*, this infinitesimal gradation ultimately ensuring the presence of the whole series in the last "moment."

But this will not avail with the concept time itself as distinguished from timed succession. That these two are separate with Mr. Peirce it is impossible to doubt. He says, e. g., "Time with its continuity logically involves some other kind of continuity than

its own," (p. 547) and speaks of "time and its flow," and of "time as the universal form "of change." And it is confusing, to say the least, when we are shifted without warning from what is practically the perceptual to the conceptual region. Granted the ideas, the feelings, or what not, "gliding almost imperceptibly" (as did the late Mr. Bardell to another sphere) past the central point of consciousness, yet not wholly past, only going, less past than any assignable past date, granted this, the assertion is not consequently warranted that time itself, the *present*, as time, not as involving the succession of ideas, is "half past and half to come." The ideas, the feelings, of which Mr. Peirce writes, successively pass through the stage of being thus half past and half to come, but that is by no means the same thing as saying that the present is half past, half to come, as Synechism avers. With our theory, as presented in the foregoing pages there is indeed no such difficulty, but Mr. Peirce, on the other hand, has elected to stand by infinitesimally measuring time, as applied to ideas etc., as separate from conceptual time, and must take the consequences of his decision. He says *the present*, *not the present idea*.

Now, in the concept time as a whole, in its entire range, a definite point may be selected—to the exclusion of other points—a point having position but not extension, as *the present*. Is it, then,—the present,—half past, half to come, as a timed idea is? Certainly not. There is nothing of the flow of a series in it. Further, this selection of the "now," as a point, does not interfere with its permanence. "Nowness" may persist. And the moment it partook, even infinitesimally, of the character of the past or of the future, it would cease to be the present. In the case of a series of ideas in time the difficulty is to get them all in present solution, as it were, without detriment to their evident continuity, but the definition of the present as a point in time presents no such difficulty. The conditions are quite distinct. Yet regarding this time point—the present—Mr. Peirce assures us that it is "half past, half to come," which is just that of which it is the precise negation, if words are to have any meaning.

Again, Mr. Peirce's *rationale* shows, upon the face of it, that there is (1) finitely divisible time and (2) time divided infinitesi-

mally, for what finite time could not do, in that it had limitations, the infinitesimal notation readily accomplishes. In its ulterior consequences, this is somewhat unfortunate for Synechism, inasmuch as the consciousness of ideas in continuity being confined to the infinitesimal theory, where, it may be asked, is the place, in consciousness, for the succession of finite intervals? Consciousness must be practically doubled, so to speak, if it is to hold both of these together. This is what comes of making one's world-scheme hang upon a mathematical subtlety—the subtlety in question partaking as a rule, more or less of the nature of an escape from the difficulties of the vulgar notation, the vulgar notation remains to be reckoned with, and both have to be credited to consciousness. As an instance of this take the following from Mr. Peirce's late article,\* "Man's Glassy Essence"—p. 15:

"In order that a sub-molecule of food may be thoroughly and firmly assimilated into a broken molecule of protoplasm, it is necessary not only that it should have precisely the right chemical composition, but also that it should be at precisely the right spot *at the right time* and should be moving in precisely the right direction with precisely the right velocity. If all these conditions are not fulfilled, . . . it will be in special danger of being thrown out again" (The italics are not in the original)."

Now here is a "time when" which can be exactly specified in accordance with the conditions. Certain results follow unless it is kept to. This is what Mr. Peirce would doubtless consider as a timed physical event, part and parcel of the regularity of matter, and yet an event which, in its own time and way, goes to account for both feeling and habit-taking—capable, therefore, of being stated in terms of finite time, as happening at a given instant, and neither before nor after it. But when this same molecule is, by virtue of keeping its appointment punctually, safely installed in feeling protoplasm, the succession of ideas, or feelings, of which, as subject, it is capable, obeys another rule—a given *instant* obtains no longer; it is the *moment* which is everything †—a moment half its predecessor,

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\* *The Monist*, Vol. III, No. 1.

† Mr. Peirce uses the word "instant" to mean a point of time, and "moment" to mean an infinitesimal duration.

half its successor. Even granted the function of the infinitesimal, this looks very much like a reduction to absurdity. For, if the above mentioned timed coalescence of the sub-molecule with the broken molecule were *also* a matter of subjective feeling, passed as process through a consciousness, the conclusion follows that the juncture of the molecules happens at two different times! There is no escape from this. Given the *instant* in the one case, the *moment* in the other, these two cannot possibly be the same point in time. The moment partakes, however insensibly, of the preceding and succeeding stages, the instant does not. Hence they are not the same but different times.

#### OTHERNESS.

The foregoing has a distinct bearing upon the question of "other selves" of which Mr. Peirce writes as follows:

"The recognition by one person of another's personality takes place by means to some extent identical with the means by which he is conscious of his own personality. The idea of the second personality, which is as much as to say that second personality itself, enters within the field of direct consciousness of the first person, and is as immediately perceived as his ego, though less strongly. At the same time, the opposition between the two persons is perceived, so that the externality of the second is recognised." ("The Law of Mind," p. 558.)

This is the scheme of "otherness" which, in the case of the Neo-Kantians, particularly the French section, represented by M. Pillon, M. Renouvier, and others, has proved such a snare. To these thinkers, (as indeed to the late Prof. T. H. Green, of Oxford, though in a less degree,) the so-called external world lies in "other" thinking subjects—in "foreign centres of representations." The free-trade doctrine has verily penetrated to the philosophic region—the wholesale admission of foreign wares to the detriment of home products. Why should I place the content of that so-called external world, which, external or internal, is my very own inalienably, in a centre of representation other than my own, thus making my cognition of it rest entirely upon the "ejective" plane? It is only when I discover, as I must sooner or later, that there is nothing in the report of an "outsider" (or in any number of them) beyond what I credit him or her with in my own consciousness; and

that the outsider is on the same plane as other objects, it is only then that the mystification is cleared up. I do *not* cognise, or recognise, the external at second-hand. The "note" of otherness is simply another term more or less in the cosmical series.

It is, however, not only with the familiar "other selves" of ordinary life that we are confronted in Synechism. In the creed of animism

" Millions of spiritual creatures walk the earth,"

and Mr. Peirce speaks of "spiritual influences" (p. 559) as having at least no hindrance presented to them by his doctrine. But he has some other shadowy personalities at command, which, it must be confessed, are well calculated to give us pause. "There should be something like\* personal consciousness in bodies of men who are in intimate and intensely sympathetic communion. . . . None of us can fully realise which the minds of corporations are. . . . But the law of mind clearly points to the existence of such personalities." It is probably true that the "minds of corporations," must ever present an insoluble riddle of perversity to the suburban dweller, vexed with the mockery of paving and lighting. But we need not linger over this speculation, for there are other shades behind.

" If such a fact is capable of being made out anywhere it should be in the Church. . . . Surely a personality ought to have developed in that Church, in that 'bride of Christ,' as they call it." ("Man's Glassy Essence," pp. 21-22.)

#### A PERSONAL CREATOR.

Bearing our ecclesiastical divisions in mind, it is difficult to conceive the unity of a "corporate personality" of this kind, but, to let that pass, it may be remarked that, when any one begins to imagine that there are others in the universe besides himself, he is not, as a rule, content with two or three companions of his solitude. They come in battalions. Thus, behind the other selves, corporate personalities and spiritual influences of Synechism, there looms a transcendent personality. "A genuine evolutionary philosophy," we are told, ". . . is so far from being antagonistic to the idea of

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\* The phrase, "something like," is significant, when we remember, (see *ante*,) that with Mr. Peirce the excitants were "something like" the excited feelings.

a personal creator, that it is really inseparable from that idea." And a philosophy of pseudo-evolutionism is "hostile to all hopes of personal relations to God." ("The Law of Mind," p. 557.)

Mr. Peirce thus assigns to his first cause a place in the *continuum* of ideas, and says that if there is a personal God we must have a direct perception of that person and "indeed be in personal communication with him." The difficulty, he admits, is that if this be so, how is it possible that the existence of this being should ever have been doubted by anybody. And the only answer he can at present make is, that "facts that stand before our face and eyes, and stare us in the face, are far from being in all cases the ones most easily discerned. That," he adds, "has been remarked from time immemorial." ("The Law of Mind," pp. 558-559.)

One of the ablest of living philosophical writers, Professor Veitch, of Glasgow University, puts it somewhat similarly, though with his own realistic coloring, when he says:

"God, if at all, must rise above the line of finite regress; He cannot be a cause in that; He cannot be a cause dependent on another cause; He must be somewhere, or at some point, in the line of an otherwise endless scientific regress, there, above it, yet related to it, and in it; otherwise He is nothing for us." ("Knowing and Being," p. 320.)

The parallelism is worth noting. Those views embody what has been the contention of the present writer throughout this paper, *with this most notable difference*: that no term of a series may thus transcend the series, or be other than on a level with the other terms, being itself only a term, a link, in the series itself. And with this falls forever the idea of a cause uncaused.

Yet am *I* not *in* the series? For all that is in the series is mine every percept, every concept; so that, "extravagant" as it may appear, it is *I who am the series*. In other words, the ego is the universe-synthesis, and the universe-synthesis the ego.

Is Mr. Peirce prepared to take the consequences of that which his Synechism leads to?

G. M. McCRIE.